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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/943,841
Filing Date: August 31, 2001
Appellant(s): BADURA ET AL.

MAILED

DEC 1 2 2007

GROUP 3600

Duane N. Moore (Reg. No. 53,352)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 26, 2007 appealing from the

Office action mailed April 5, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6681106   Marsh et al.   1-2004

Dalheimer, Matthias Kalle. "LinuxTag 2001 Proceedings: Virtual Companies". archived

on 7/25/01 at <http://www.klaralvdalens-datakonsult.se/Presentations/LinuxTag2001-

virtual-companies-presentation/virtualcompanies.html>.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-3, 5-8, 10, 12-16, and 18-22 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Marsh et al. (U.S Patent #6,681,106) in view of Matthias Kalle

Dalheimer's "LinuxTag 2001 Proceedings: Virtual Companies" (hereinafter referred to

as Dalheimer).

As per claim 1, Marsh et al. teaches a method of selecting from a plurality of modes of communication comprising:

(a)   inputting a first party's ability to communicate with a second party **(data regarding a given cellular account, subscriber, or group of subscribers if the service is provided for a corporate customer, is provided by a carrier; optimator process receives as input the various service plans, service plan packages, and coverage areas offered by various carriers and that are associated with each service plan package)** [Column 7, lines 15-17, Column 16, line 60 – Column 17, line 1];

(b)   evaluating a cost effectiveness of a mode of communication of said modes of communication based on said first party's ability to communicate **(MAMBA system provides an analysis of periodically loaded wireless service usage of a given account or subscriber, and/or group of accounts or subscribers, and determines whether or not that subscriber, or group of subscribers, is on the optimal wireless service plan according to the particular subscriber's usage patterns across a variable number of service billing periods)** [Column 8, lines 54-62], said evaluating comprising:

(i)   inputting said first party's ability into a decision tree **{although not described as a "decision tree", decision points 1498, 1501, 1504, 1512, 1519, 1523, 1526, 1529, and 1532 determine whether current savings of different package types are greater than max savings, performing the same functionality as a**

"decision tree", by providing decision modules with consequences (if YES, then

save current savings; if NO, then move to next package type)} [Figures 34A, 35A];

(ii)   determining a cost of establishing and maintaining said mode of

communication **(calculate the cost of each service plan package combination for**

the given user usage profile) [Column 8, lines 37-40];

(iii)   determining a savings associated with said mode of communication

(if the savings if sufficient (efficiency > 1.x), where x is the historical percentage

savings, then change plans; determine how much package saves against current

base package cost) [Column 23, lines 50-52, Column 34, lines 65-67, Figure 35B]; and

(iv)   comparing said cost to said savings to calculate a return on

investment associated with said establishing and said maintaining of said mode of

communication **(relative attractiveness of a service plan instance is determined by**

comparing it to the corresponding actual billed usage of the current service plan

for the given period; the specific measure, termed "efficiency", is calculated as

current plan costs/service plan instance estimated cost; if the efficiency factor is

greater than 1, then the service plan instance is more cost effective than the other

plan) [Column 18, lines 34-45];

(c)   repeating said evaluating for a different mode of communication of said

modes of communication if said first party's ability does not match a mode of

communication of said modes of communication previously evaluated **(MAMBA system**

then repeats the logical steps (load data, create a calling profile, identify optimal

service plan options, make recommendations as to the best service plan and

options) in accordance with a predefined periodic basis) [Column 7, lines 31-33];

and

(d)   implementing a mode of communication of said modes of communication

when said first party's ability matches a mode of communication of said modes of

communication **(if there is a more optimal plan, then change plans)** [Column 23,

lines 50-52].

Marsh et al. does not explicitly teach the step of considering modes of

communication including telephone, facsimile, hard copy mail, electronic mail, and on-

line communication arrangements. However, Dalheimer teaches the step of choosing

from amongst a plurality of common communication channels, including email, postal

mail, fax, telephone, video conferencing, IRC and IP telephony [Page 2].

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the teachings of Marsh et al. to include the step of choosing from

amongst a plurality of common communication channels, because doing so further

expands the ability of Marsh et al. to enable selection of a best telecommunication

service provider for a customer based on historical usage and costs.

As per claim 2, Marsh et al. teaches the method in claim 1, wherein a substance

of said communication mode of communication comprise at least one of a purchase

order and billing communications between a purchasing corporation and a supplier

{calling package being a communications service "ordered" and billed for; The

Marsh system includes a transceiver configured to receive billing information

associated with a subscriber of a telecommunications service, the subscriber

being a purchasing "corporation" and the telecommunication service provider

being the "supplier"} [Abstract].

As per claim 3, Marsh et al teaches the method in claim 2, wherein said first party

comprises said supplier **(telecommunications service providers)** and said second

party comprises said purchasing corporation **(subscriber of a telecommunications**

service) {The subscriber constitutes a purchasing entity, and the service provider

provides telecommunications service, making them a supplier of

telecommunications service} [abstract].

As per claim 5, Marsh et al teaches the method in claim 1, wherein said decision

tree orders mode of communication that are evaluated by their cost effectiveness to the

second party **{listing of historical prediction model efficiency of Plans A-E, along**

with Current Plan} [Tables 7-8].

As per claim 6, Marsh et al. teaches the method in claim 1, further comprising

before said implementing, performing a cost-benefit analysis **(calculate "efficiency" of**

each service plan instance to determine relative attractiveness) with respect to a

mode of communication matching said first parties ability [Column 18, lines 15-44].

As per claim 7, Marsh et al. teaches the method in claim 6, wherein said cost-benefit analysis compares the cost of establishing a matching mode of communication to the cost of a next mode of communication **{listing of historical prediction model cost of Plans A-E, along with Current Plan}** [Tables 7-8].

As per claim 8, Marsh et al. teaches a method of selecting from a plurality of modes of communication comprising:

(a)   inputting a first party's ability to communicate with a second party **(data regarding a given cellular account, subscriber, or group of subscribers if the service is provided for a corporate customer, is provided by a carrier; optimator process receives as input the various service plans, service plan packages, and coverage areas offered by various carriers and that are associated with each service plan package)** [Column 7, lines 15-17, Column 16, line 60 – Column 17, line 1];

(b)   evaluating a cost effectiveness of a standard mode of communication **{The current service plan instance is taken to represent a "standard" communication arrangement, and each of a plurality of alternative service plans constitutes a "non-standard" communication arrangement}** based on said first party's ability to communicate **(MAMBA system provides an analysis of periodically loaded wireless service usage of a given account or subscriber, and/or group of accounts or subscribers, and determines whether or not that subscriber, or group**

of subscribers, is on the optimal wireless service plan according to the particular

subscriber's usage patterns across a variable number of service billing periods),

wherein said mode of communication comprises telephone **{wireless communication**

services} [Column 8, lines 54-62];

said evaluating comprising:

(c)   repeating said evaluating for a different mode of communication if said first

party's ability does not match a mode of communication previously evaluated **(MAMBA**

system then repeats the logical steps (load data, create a calling profile, identify

optimal service plan options, make recommendations as to the best service plan

and options) in accordance with a predefined periodic basis) [Column 7, lines 31-

33], wherein said non-standard mode of communication has a cost above said standard

mode of communication **{Alternative (i.e. "non-standard") communication**

arrangements are implemented when proven to be more "efficient" (calculated by

current plan costs/service plan instance estimated cost), and yield more cost

savings than the current communication arrangement}, and wherein said evaluating

comprises:

(i)   inputting said first party's ability into a decision tree **{although not**

described as a "decision tree", decision points 1498, 1501, 1504, 1512, 1519, 1523,

1526, 1529, and 1532 determine whether current savings of different package

types are greater than max savings, performing the same functionality as a

"decision tree", by providing decision modules with consequences (if YES, then

save current savings; if NO, then move to next package type)} [Figures 34A, 35A];

(ii)   determining a cost of establishing and maintaining said mode of communication **(calculate the cost of each service plan package combination for the given user usage profile)** [Column 8, lines 37-40];

(iii)   determining a savings associated with said mode of communication **(if the savings if sufficient (efficiency > 1.x), where x is the historical percentage savings, then change plans; determine how much package saves against current base package cost)** [Column 23, lines 50-52, Column 34, lines 65-67, Figure 35B]; and

(iv)   comparing said cost to said savings to calculate a return on investment associated with said establishing and said maintaining of said mode of communication **(relative attractiveness of a service plan instance is determined by comparing it to the corresponding actual billed usage of the current service plan for the given period; the specific measure, termed "efficiency", is calculated as current plan costs/service plan instance estimated cost; if the efficiency factor is greater than 1, then the service plan instance is more cost effective than the other plan)** [Column 18, lines 34-45];

(d)   performing a cost-benefit analysis with respect to a mode of communication matching said first parties ability **(calculate "efficiency" of each service plan instance to determine relative attractiveness)** [Column 18, lines 15-44]; and

(e)   implementing a communication arrangement when said first party's ability matches a mode of communication **(if there is a more optimal plan, then change plans)** [Column 23, lines 50-52].

Marsh et al. does not explicitly teach the evaluation and consideration of different

modes of communication, including facsimile, e-mail, hard copy mail, and at least one

on-line communication arrangement.

However, Official Notice is taken that facsimile, e-mail, hard copy mail, and the

Internet are communication means that are old and well known in the art capable of

transmitting communications between a service provider and customer. Marsh et al.

evaluates the cost effectiveness of a plurality of service providers and service plans to

determine the optimal communications plan based on the needs of the user. Improving

the quality of service and the value of services received by a subscriber, and enabling

selection of a best telecommunications service are goals of Marsh et al. [Column 2,

lines 53-55, abstract]; therefore, it would have been obvious to one of ordinary skill in

the art at the time of invention to modify the teachings of Marsh et al. to consider

facsimile, e-mail, hard copy mail, and the Internet as doing so would expand the

capabilities of Marsh et al. to include alternative modes of communication, thereby

validating the analysis performed by Marsh et al., as it now includes additional modes of

communication to consider to recommend to the user in order to improve the quality and

cost effectiveness of the value of services received.

As per claim 21, Marsh et al. does not explicitly teach wherein said evaluating

and said implementing of said mode of communication comprises evaluating and

implementing at least one of telephone, facsimile, e-mail, hard copy mail, and at least

one on-line communication arrangement.

However, Official Notice is taken that facsimile, e-mail, hard copy mail, and the

Internet are communication means that are old and well known in the art capable of

transmitting communications between a service provider and customer. Marsh et al.

evaluates the cost effectiveness of a plurality of service providers and service plans to

determine the optimal communications plan based on the needs of the user. Improving

the quality of service and the value of services received by a subscriber, and enabling

selection of a best telecommunications service are goals of Marsh et al. [Column 2,

lines 53-55, abstract]; therefore, it would have been obvious to one of ordinary skill in

the art at the time of invention to modify the teachings of Marsh et al. to consider

facsimile, e-mail, hard copy mail, and the Internet as doing so would expand the

capabilities of Marsh et al. to include alternative modes of communication, thereby

validating the analysis performed by Marsh et al., as it now includes additional modes of

communication to consider to recommend to the user in order to improve the quality and

cost effectiveness of the value of services received.

Claims 14-16 and 18-20 recite limitations already addressed by the rejection of

claims 1 and 5-7 above; therefore, the same rejections apply.

As per claim 14, the moving average monthly bill analysis (MAMBA) system

utilized by Marsh et al. is implemented in software, hardware, or a combination thereof [Column 4, line 41 – Column 5, line 45], thus providing a program storage device readable by machine tangibly embodying a program of instructions executable by the machine to perform the steps of claims 1 and 5-7 as discussed above.

Claims 10, 12, 13, 15, 16, and 22 recite limitations already addressed by the rejection of claims 2, 3, and 21 above; therefore, the same rejections apply.

(10) Response to Argument

Independent claims 1, 8 and 14

Appellant argues that, although the prior art references cited disclose evaluating communication channels based on "cost", the prior art does not teach or suggest the claimed element of evaluating "cost effectiveness" based on a first party's ability to communicate. Appellant argues that although Dalheimer discusses "costs" as a consideration when selecting communication channels, Dalheimer fails to disclose whether the "cost" is the cost to the buyer, the cost to the seller, or the combined cost between the buyer and the seller, and that any interpretation beyond "considering cost when selecting communication channels" in light of Dalheimer would be based on hindsight. Appellant also argues that Marsh does not teach or suggest evaluating a cost effectiveness of a mode of communication based on a first party's ability to communicate.

The Examiner respectfully disagrees.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., who incurs the cost) are not recited in the rejected claim(s). Although the claims

are interpreted in light of the specification, limitations from the specification are not read

into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.

1993). The Examiner points out that the party incurring the cost of a specific mode of

communication is not claimed in the claims.

In response to applicant's argument that the examiner's conclusion of

obviousness is based upon improper hindsight reasoning, it must be recognized that

any judgment on obviousness is in a sense necessarily a reconstruction based upon

hindsight reasoning. But so long as it takes into account only knowledge which was

within the level of ordinary skill at the time the claimed invention was made, and does

not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA

1971). Furthermore, as cited by the Examiner and the Appellant, Dalheimer teaches

that [virtual] companies "can select among a bewildering variety of communication

channels and will typically employ a mixture of the available options", and that "[s]ome

of the aspects to consier when selecting communication channels are asynchronous vs.

synchronous channels, latency, and cost" [Page 2]. The Examiner asserts that the

teachings of Dalheimer are applied to companies choosing from a plurality of

communications options; thus the "cost" is the cost incurred to the user/buyer for

implementation/adoption of a specific communications option. Further, as point out by

Appellant, Marsh teaches the step of analyzing a user's historical usage patterns (i.e.,

ability to communicate) of a wireless service (i.e., telephone) and evaluating the relative

attractiveness of a cellular service plan by establishing an "efficiency" (i.e.,

effectiveness) measure calculated by (current plan costs/service plan instance

estimated costs) [Column 18, lines 34-40] and suggests alternate cellular service plans

that better meet the users' usage patterns and that reduce the overall cost of service to

the account/subscriber if a specific service plan is non-optimal. In analyzing historical

usage patterns, Marsh teaches the step of storing data on the user's calling profile,

which includes the total number of calls and total number of rejected calls [Table 5 on

Column 14], which represent the ability of the user to make calls. The Examiner asserts

that Marsh teaches the step of evaluating the cost effectiveness of a communications

option based on a first party's ability to communicate, and that Dalheimer teaches the

step of considering a plurality of communications options in different channels, including

email, postal mail, fax, telephone, video conferencing, IRC and IP telephony, and a

combination of Marsh and Dalheimer would yield a system that evaulates the cost

effectiveness of a plurality of communications options in different communications

channels based on a first party's ability to communicate. The Examiner asserts that

each of the elements taught by Marsh and Dalheimer references combined by the

Examiner performs the same function when combined as it does in the prior art. Thus,

such a combination would have yielded predictable results. See Sakraida, 425 US at

282, 189 USPQ at 453. The proposed Marsh-Dalheimer combination only unites old

elements with no change in their respective functions and which yield predictable

results. Thus, the claimed subject matter of "evaluating cost effectiveness based on a

first party's ability to communicate" likely would have been obvious under KSR.

Dependent claims 6, 7, 13, 19 and 20

Appellant argues that Marsh does not perform "a cost-benefit analysis with respect to a mode of communication matching said first parties ability" and that Marsh merely discloses calculating "efficiencies" of different "service plans'.

The Examiner respectfully disagrees. As noted above, Marsh teaches the step of analyzing a user's historical usage patterns (i.e., ability to communicate) of a wireless service (i.e., telephone) and evaluating the relative attractiveness of a cellular service plan by establishing an "efficiency" (i.e., effectiveness) measure calculated by (current plan costs/service plan instance estimated costs) [Column 18, lines 34-40] and suggests alternate cellular service plans that better meet the users' usage patterns and that reduce the overall cost of service to the account/subscriber if a specific service plan is non-optimal. The analysis of service plan options yields an analysis of the efficiency and cost of each service plan in comparison to the current/baseline service plan [see Tables 6-8 and 10]; thus there is a "cost" of each service plan, and the "benefit" of each service plan includes the efficiency and cost savings. The Examiner asserts that Marsh teaches the step of evaluating the costs and benefits of a communications option based on a first party's ability to communicate, and that Dalheimer teaches the step of considering a plurality of communications options in different channels, including email, postal mail, fax, telephone, video conferencing, IRC and IP telephony, and a

combination of Marsh and Dalheimer would yield a system that evaulates the costs and

benefits (i.e., cost-benefit analysis) of a plurality of communications options in different

communications channels based on a first party's ability to communicate. The Examiner

asserts that each of the elements taught by Marsh and Dalheimer references combined

by the Examiner performs the same function when combined as it does in the prior art.

Thus, such a combination would have yielded predictable results. See Sakraida, 425

US at 282, 189 USPQ at 453. The proposed Marsh-Dalheimer combination only unites

old elements with no change in their respective functions and which yield predictable

results. Thus, the claimed subject matter of "evaluating cost effectiveness based on a

first party's ability to communicate" likely would have been obvious under KSR.

Dependent claims 5, 12, and 18

Appellant makes arguments similar to those made with respect to independent

claims 1, 8 and 14 and dependent claims 6, 7, 13, 19, and 20 above, the only difference

being that in claims 5, 12 and 18, the decision tree orders modes of communication that

are evaluated by their cost effectiveness to the second party.

The Examiner respectfully disagrees. Marsh teaches the step of producing a

report of at least one proposed rate plan to enable selection of a best

telecommunications service provider and a best rate plan, and also ranks service plans

by "efficiency" factor (which is based on costs) and relative sensitivity (after performing

a sensitivity analysis) [Column 2, lines 41-43, Tables 7-8, Column 19, lines 35-37,

Column 26, lines 64-65, Column 27, lines 1-4]. Marsh also teaches the step of having a

plurality of service providers offering service plans from which to select ["analyzing the

processed data in relation to at least one rate plan of a plurality of at least one

telecommunication service provider", Column 2, lines 36-38] and compares the

efficiency of a plurality of service plans (i.e., a plurality of telecommunication service

providers) to the current service plan of the current service provider. The claim limitation

does not disclose whether the "cost effectiveness to the second party"

is the cost effectiveness to the buyer (user), the cost to the seller (the service provider),

or the combined cost between the buyer and the seller; thus, using the broadest

reasonable interpretation, the "cost effectiveness to the second party" has been

construed as the cost effectiveness of the first party communicating with the second

party. Thus, the Examiner asserts that Marsh teaches the step of evaluating the ability

and cost effectiveness of the user (i.e., the first party) to communicate with the current

service provider (i.e., the second party) and the user's ability and cost effectiveness to

communicate using one of a plurality of alternative service plans (i.e., an alternate

second parties) and ranking the service plan options based on cost effectiveness.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

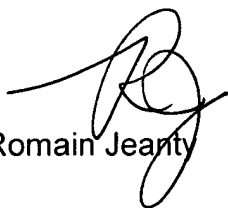Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

PC.

Peter Choi

Conferees:

Romain Jeanty

Vincent Millin

December 10, 2007